1907MNRAS..68..127D

Note on Photographs of Phœbe, taken at the Royal Observatory, Greenwich.

(*Communicated by the Astronomer Royal.*)

Photographs of Phœbe have been obtained with the 30-in. reflector on 16 nights, viz.—

	m		m
1907 Aug. 10	Exp. 105	1907 Oct. 2	Exp. 90
11	133	4	120
18	143	8	53
19	120	12	90
29	93	30	100
Sept. 2	53	Dec. 3	120
9	107	5	120
10	70	6	90

The photograph on October 30 was at or very near elongation, and will thus be of special value for a determination of the mass of Saturn, for which this satellite is peculiarly useful, its distance at elongation being about 28′—three times that of Iapetus.

Royal Observatory, Greenwich:
1907 *December* 13.

Occultations of Uranus by the Moon in 1908, *visible at British Observatories.* By A. M. W. Downing, D.Sc., F.R.S.

It is hoped that the publication of the following particulars will enable astronomers who are favourably situated to observe some at least of these interesting phenomena, noting any peculiarities of appearance of the planet at the time of occultation that may strike them.

Day. 1908.	Place.	Standard Mean Time of Place.		Angle from North Point.	
		Immersion.	Emersion.	Immersion.	Emersion.
		h m	h m	°	°
April 22	Adelaide	10 53	11 46	106	266
,,	Melbourne	11 25	12 20	106	266
,,	Sydney	11 20	12 18	88	284
,,	Wellington	13 10	14 18	81	288
May 19	Natal...	8 44	9 29	64	308
July 13	Perth, W.A. ...	5 41	6 35	99	275
,,	Adelaide	7 19	8 19	78	296
,,	Melbourne	7 57	8 59	79	293
,,	Sydney	8 3	8 57	58	315
,,	Wellington	10 11	11 19	62	299
Aug. 9	Cape of Good Hope...	10 4	10 55	37	321
Oct. 3	Wellington	12 20	13 7	58	287

1907 *December* 6.

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The Transit of Mercury, 1907 *November* 14.

(*Communicated by R. T. A. Innes.*)

At Johannesburg, at ingress, thin clouds obscured the Sun and made observation difficult; at egress the Sun was cloudless except for a few moments just before external contact.

At Pretoria the Surveyor-General organised a party, but clouds prevented any useful observations.

The observations made here are tabulated below. The individual observers' reports are as follows:—

Mr. R. T. A. Innes, using a 9-in. refractor by Grubb, with a sun-diagonal eyepiece:—

When I looked at the Sun at 15^h 46^m 4^s sid. (clock) T. Mercury was already about $\frac{1}{8}$ on. At the time of internal contact rather thick clouds were passing, but the planet was never invisible. Internal contact took place, as nearly as I could estimate, at 15^h 47^m 48^s, but it was possibly a few seconds later. Heavy clouds passed for a few seconds, making confused definition. At 15^h 48^m 1^s the sky cleared, but contact was passed and the planet clear of the limb by $\frac{1}{8}$ part or so. Before egress the planet was carefully scrutinised; it was a mere circular black dot, without any shading; definition was perfect, the Sun's limb being without a trace of serration. Second internal contact was at 19^h 8^m 56^s and was good; last contact at 19^h 11^m 36^s was fair, as some thin clouds were passing.

Mr. W. M. Worssell, M.B.A.A., took part in the observations with his 3-in. refractor and a direct-vision eyepiece:—

Ingress: definition was very bad, a decided line was seen at 15^h 47^m 59^s sid. T. Egress: suspected black drop at 19^h 8^m 48^s, certain black drop at 19^h 8^m 51^s; contact passed at 19^h 9^m 0^s, external contact at 19^h 11^m 27^s. Definition medium.

Mr. J. Innes, 3-in. refractor, direct-vision:—

Dark glass split during observations, observations uncertain. Internal contact at egress 3^h 46^m 41·5^s stand. clock T., egress 3^h 49^m 1.5^s. One-quarter weight has been given to these observations.

Mr. H. E. Wood, M.Sc. 2$\frac{1}{8}$-in. refractor (Rheinfelder & Hertel), direct-vision:—

Good definition, image small; internal contact at egress good, 19^h 8^m 56^s sid. T., last contact at 19^h 11^m 25^s more uncertain.

For the timing arrangements, electrical sounders, connected with the sidereal clock, were placed near the observers. The clock had

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